THE Macdonald Farm Journal

VOLUME 16 No. 1

SEPTEMBER 1955

F A R M • S C H O O L • H O M E

Should your heating system get you up in the air?

Perhaps it should . . . because
the ceiling's the usual place
for warm air to gather . . .
It's an old problem . . .
but now there's a modern answer . . .

CRANE

RADIANT BASEBOARD PANELS

They provide heat at ankle level and a more uniform temperature between floor and ceiling. They reduce drafts, and bring comfort at lower levels.

Ideal for new construction, they're easily installed in existing buildings too. And home-owners appreciate the way they save floor space, don't obstruct wall space.

Ask your plumbing and heating contractor all about them.

Only Crane makes Cast Iron Radiant Baseboard Panels in Canada. They're one important item in the comprehensive Crane line of dependable equipment that supplies *complete heating systems*—for hot water or warm air—for coal, coke, oil or gas. For full information on any aspect of home heating, ask your plumbing and heating contractor, or write—

CRANE

Quality costs no more

CRANE LIMITED

General Office:
1170 Beaver Hall Square,
Montreal

7 Canadian Factories
18 Canadian Branches

1-5406-B

As we see it

Can Quebec Farmers Work Together?

Our latest abortive attempt to form "a strong action organization for English-speaking farmers" aptly illustrates a principle. Unless people feel that they have a "cause" in which to believe, they are not going to be motivated to action.

The committee responsible for outlining and promoting the idea for a Quebec Farmers' Association last winter failed to provide motivation. They worked diligently and were unquestionably sincere in their efforts. But few people seriously believed that the proposed organization could carry out any of its stated objectives. Not many farmers, however, would quarrel with their aims to 'develop orderly marketing'; 'obtain legislation to improve the agricultural economy and rural community'; 'obtain an equitable share of the national income for farmers'; 'higher net-returns for agriculture'; 'better educational and social services'; 'elimination of the cost-price squeeze on farming'; 'development of co-operatives and marketing associations'; 'parity-prices in relation to farm costs'; 'development of expanding markets for farm products!

In Quebec, outnumbered 8 to 1 by French-speaking farmers, 10,000 English-speaking farmers do not add up to a "strong English-speaking farm organization". In our tightly organized French rural communities with strong support of the Church, it has taken 30 years for the Catholic Farmers Union (U.C.C.) to build its membership up to its present 35,000 level. We were indeed optimistic to think we could get 50 percent of our farmers to join in one year, paying a direct $5.00 to $10.00 membership fee to an organization that existed only on paper.

Our 10,000 farmers are spread over an area from Pontiac to Gaspé. In only isolated small pockets do we have any sizeable numbers of English-speaking farmers living in close proximity to one another. Yet despite the difficulties of organization, the committee set as their objective to enroll 5,000 members. More realistic estimations placed the possible figure at 2,000 at the most and probably not more than 1,000 to 1,500. Inspired volunteers to "sell the idea" in all districts of the province were not forthcoming and there was no stampede to join the proposed organization. People simply did not believe it could work and in that decision were perfectly justified.

This problem of developing a "strong action organization" is a real challenge for Quebec English-speaking farmers. Our people feel the need for such an organization but have not yet been motivated to do much about it. No one has taken the trouble to find out what should be the basic and realistic principles on which to found "a strong action organization".

In our opinion, the basic principle to be established is how our farmers are going to relate themselves to the powerful French-speaking Catholic Farmers' Union (U.C.C.) and the predominately French-speaking Co-opérative Fédérée. It does not seem to us that a separate English-speaking farm organization is the answer. The proper solution would seem to be some form of United Front or Grand Coalition of existing farm groups in the province.

In such a grouping all English-speaking farm groups would be free to join. Other groups would include the many bi-lingual organizations like the Montreal Milk Producers, the Agricultural Societies, Breed Associations, Horticulture Societies, and Co-operatives. The U.C.C. and other purely French-speaking organizations would be a strong ingredient. No group large or small would lose its identity as an organization. The objective would be co-operation 'one for all and all for one'.

Meeting several times a year in a General Congress of Quebec Farmers, their influence on legislation and the general public would be enormous. Would not a united front for agriculture prove a more powerful stimulus to enlist support of English-speaking farmers than the less desirable course of organizing separately?

If we are to follow this principle, then English-speaking farm leaders must get together and work out a sensible approach. Then with due haste they must seek common ground with their French-speaking compatriots.

The Macdonald Farm Journal is owned and edited by Macdonald College, and is published in Montreal, P.Q. All correspondence concerning material appearing in the Journal should be addressed to: The Editor, Macdonald College, Que.

Chairman of the Board, W. H. Brittain; *Editor*, A. B. Walsh; *Associate Editor*, H. R. C. Avison; *Business Manager*, J. H. Holton; *Farm Editor*, J. A. T. Davidson.

For advertising rates and all correspondence concerning the advertising section write to the *Advertising Representative*, E. Gross, 202 Cote St. Antoine Road, Westmount, telephone GLenview 2815.

Subscription rate $1.00 for 3 years. Authorized as second class mail, Post Office Department, Ottawa.

Planned Management; Permanent Production; Higher Yields and Fair Prices are the Keys to

Higher Returns from the Farm Woodlot

by W. H. Brittain

In this article the author discusses pulpwood pricing in relation to woodlot production: "higher prices for wood, however desirable, are not the full answer to better returns from the woodlot . . . the yield of the average farm woodlot is far too low, higher returns over a long period are dependent upon better management."

THE DEMAND of producers for a higher income for wood products is, in view of the existing conditions, understandable and one that must excite sympathy on the part of those concerned with rural welfare. Anyone at all familiar with agricultural conditions is well aware of the fact that making a comfortable living on the average farm is beset with many difficulties, including droughts, floods, hail, severe winters, pests, and a price structure which may have little relation to costs of production.

There is some truth in the statement that farming is a bigger gamble than the stock market! Frequently a bumper crop gives a lower cash return than a small crop. A total failure, moreover, means not only the loss of the crop, but everything expended on its production, including labour, fertilizer, seed, spraying materials, etc. Even the production of maple syrup, in a poor season, may show a loss if wages and other legitimate items are charged against the operation, but, nevertheless, may be justified since it enables the owner to make use of available labour and equipment and to secure a cash income in off-seasons. Few farmers, therefore, can expect to become rich in this way, but both may play an important part in the farm economy. To many small farmers in eastern Canada the woodlot is an important and, indeed, in some cases almost the only source of cash income.

The economics of wood production is a complicated problem, and it is impossible in the space available to deal with all aspects of the subject in a short article. It is only desirable to point out here that the actual cost of the price of wood is "the cost delivered at the mill". Transportation charges, whether by boat, truck or rail, together with handling charges, factors of continuous supply etc., must all be taken into account in order to secure a fair judgment.

Price Not Whole Answer

It is the purpose of this article to make one point only, namely, that price is not the only factor in considering the situation. In all farm surveys it is clearly shown that no pricing schedule can do much for the

TABLE I — Figures of Quebec Woodlot Operations (1950) Based on Report from 81,719 Farms Reporting Wood Sales (1951 Census Figures).

Tpye of Product	Total Volume	Yield per Farm	Unit Value	Approximate Value per Farm
Fuelwood	1,858,560 cords	22.7 cords	$5.88 c.	$133.00
Pulpwood	705,592 "	8.6 "	12.70 c.	109.00
Fence posts	2,144,834 (no.)	26	.15½ ea.	4.00
Logs for lumber, veneer, bolts, ties.	182,308,795 bd.ft.	2,200 bd.ft.	43.10 (M)	95.00
Pit props, poles and other	Very small proportion			2.00
			TOTAL PER FARM	$343.00

NOTE 1 — Average farm price (E.Canada) per cord for pulpwood (1950) $12.15. Out of 1,269,301 cords of pulpwood produced on farms in Canada 1,239,591 cords come from Eastern Canada's farm woodlots.

NOTE 2 — Pulpwood sales represent 33 percent of the total value of wood cut on farms. The Quebec figure is 32 percent.

NOTE 3 — 705,592 cords of pulpwood was cut by Quebec farmers in 1950. This figure represents 57 percent of the pulpwood from Eastern Canada and 55 percent of the pulpwood from farms in all Canada.

NOTE 4 — Out of 134,336 farms in Quebec, 81,719 report woodlot operations, or 67%, as compared with 31% in Ontario.

NOTE 5 — Out of 16,786,405 acres of farm land in the province 5,874,341 acres is classified as woodland or about 35 percent of the total acreage.

NOTE 6 — The average farm is 125 acres in size with about 43 acres in woodlot on the average. This average is for *all* farms in Quebec. Of the 81,719 farms reporting woodland operations, it is likely their average acreage in woodland is closer to 60 acres.

NOTE 7 — On a basis of 43 acres of woodland per farm, the value of wood cut (1950) is close to $8.00 *per acre* total wood; $2.50 per acre for pulpwood alone, basis 0.2 cords per acre.

NOTE 8 — If we should base our estimate on a figure of 60 acres of woodland per farm, the value of wood cut (1950) is only $5.70 *per acre* total wood; $1.82 per acre for pulp wood alone, basis 0.143 cords per acre.

NOTE 9 — Figures of pulpwood production from the nine leading counties are naturally higher than the provincial average.

NOTE 10 — 21,700 Quebec farms report sales of maple products averaging $240.00 per farm (1950).

low or inefficient producer. No matter what the price may be, if he does not have a sufficient quantity to sell he cannot make a living in crop or animal production. Similarly, higher prices for wood, however desirable, are not the full answer to better returns from the woodlot over a long period of time. Without a planned program of woodlot management high prices may only encourage "mining", sacrificing the long term results to quick profits.

The important place of the woodlot in farm economy is due to its permanency—the fact that in most cases it occupies land that could not profitably be cultivated, and that it can be depended on to yield a steady, predictable annual income, affording profitable employment for labour during slack periods—all without expenditure for seed, fertilizer or cultivation. All this, of course, is well known, and there are many other values associated with farm woodlots which it is unnecessary to enumerate here. The main point is that the yield of the average farm woodlot is low—too low—and that higher returns over a long period are dependent upon better management.

Tables No. 1 and 2, bear out this statement. A figure of 43 acres of woodlot per farm, and the estimate of 60 acres per farm, an average yield of 8.6 cords per farm of pulpwood and some 2200 board feet of marketable logs is very low indeed as compared with what properly managed woodlots can be made to produce. It is hard to see under these conditions, how higher prices could greatly benefit the average producer. In fact, higher prices, without the benefit of a Woodlot Management Plan, might well have a harmful effect, in that they might induce still heavier cutting in order to secure the higher price.

Even if we take only the figures from the nine chief producing counties as outlined in Table 2, we note that the average income per farm from pulpwood—even allowing for possible inaccuracies in the figures—is very low indeed—varying from an average high of $300 per farm in Charlevoix Co. to an average low of $150 in Beauce. No pricing schedule would therefore be of much avail to the average producer, even in these countries. The answer seems to be that we must first concentrate on more productive methods, following which higher prices would have some meaning.

TABLE II — Some Data on the Importance of Pulpwood Sales in the Nine Quebec Districts Reporting Sales in Excess of $300,000 (1951 Census).

County	Total No. Farms	No. Farms Reporting Woodlot Sales	Total Value All Wood Sales 1,000's $	Total Value Pulpwood Sales 1,000's $	App. Income from Pulpwood Sales per Farm Reporting	App. % from Pulpwood Sales
Gaspe	5,471	2,359	1,242	700	$283.	47%
Bonaventure	4,154	3,126	1,166	545	175.	46%
Charlevoix	1,486	1,279	651	393	300.	60%
Abitibi	6,959	3,690	1,661	893	241.	54%
Matane-Matapidia	4,666	3,394	1,310	660	194.	50%
Frontenac	2,837	2,081	818	434	207.	53%
Hull-Gatineau	2,328	1,464	732	311	214.	42%
Dorchester	3,409	2,807	909	463	165.	50%
Beauce	4,465	3,401	1,125	509	150.	45%

Conclusions

1. The farm woodlot affords a method of securing some revenue from an otherwise unprofitable area, and provides work and gainful labour during a time of year when ordinary farm operations are impossible or unprofitable.

2. As with other farm products, there is a tendency to over-emphasize the price factor. Increased prices alone, unaccompanied by management practices, simply results in over-cutting and in destruction of permanent values for the sake of a quick profit.

3. The present average production of farm woodlots in Quebec is very low and indicates the necessity of greater attention to modern woodlot management practices, which in the past have been conspicuously lacking.

Freeze Broccoli and Cauliflower

Broccoli and cauliflower are usually quite abundant at this time of the year, and since they yield an excellent frozen product, why not add these two vegetables to those already stored in the locker or home freezer. They will provide an added variety in the menus during the winter.

The procedure for freezing these vegetables is essentially the same as for the others. Sound compact tender heads or curds are selected. After trimming the broccoli is cut through the stalks so that the pieces of heads are not more than one inch across, and the cauliflower is broken into small flowerettes about one inch in diameter

They are washed thoroughly and inspected carefully. The blanching time for these vegetables is about 3 minutes in boiling water, counting the time after the water has come back to a boil, and using at least 1 gallon of water per pound of vegetable. After quick cooling, these products are packed in moisture vapour-proof containers and frozen immediately.

— JEAN DAVID.

Home Storage

by Jean David

STORAGE of certain fruits and vegetables under suitable conditions, combined with canning, freezing, jamming and pickling, can assure a year-round supply of home grown vegetables and fruits from any well planned and well kept home garden. Common storage, that is, a storage which depends on the outside air to do the cooling and maintain low temperatures, is an easy and inexpensive way to keep many vegetables and apples. These less perishable vegetables will maintain more nearly their original flavour in storage than when kept in any other way.

It is important to remember that fruits and vegetables are still living parts of plants, therefore they continue to respire, transpire and are subject to breakdown and decay, the same as before harvest. In a common storage we are endeavouring to create conditions which will slow down these reactions to a minimum, thereby making sure that the fruits and vegetables will remain in good condition. Because these changes will also affect the nutritive value of the produce, fruits and vegetables must be stored where the temperature can be maintained below 40°F.

The Storage

A good storage place must meet certain requirements. Since the best place for a home storage is in the basement of the house because of the convenience, it is essential to provide enough insulation and vapor-proofing to maintain proper temperature and moisture content of the air if the basement is heated. The vapor proofing material is normally placed on both sides of the insulation which is usually 3 to 5 inches thick so that the insulating material will remain dry. A wet material is a poor insulator.

Provision for ventilation is necessary to introduce cold air from the outside to obtain lower storage temperatures. The presence of a window in the storage room will serve this purpose. However precautions should be taken to keep rodents and other pests out by placing a wire screen on the window. Sunlight should be excluded by shading or darkening all the glass panes since it increases temperatures and induces sprouting and flavour changes in certain vegetables.

Preparation of the Storage

Before the fruits and vegetables are placed in the storage, the room used should be thoroughly cleaned. All refuse and decayed produce should be removed if this has not already been done in the spring, which is the proper time to do the cleaning. Whitewashing the storage will help in keeping down the spoilage organisms.

The Product

The condition of the fruits and vegetables when they are placed in the storage is important. It will have an effect on the length of time they will keep, and also on the flavor and edibility at the end of the storage period. Only sound produce should be placed in storage. Freedom from bruises, disease spots, insect damage, or injury of any kind will prevent the infestation by rots and decay organisms during storage.

Fruits and vegetables should never be put into storage in a warm condition. This is sometimes difficult to accomplish. A practical way to handle the vegetables is to leave them in the ground until there is danger of freezing. After harvest they may be allowed to remain outdoors during a cool night so they will cool down. They are placed in storage before their temperature rises the next day.

Humidity

Sufficient humidity must be provided in the storage to prevent wilting. Sprinkling water, or spreading a layer of moist sand on the floor will frequently provide the proper humidity. Where only a few bushels of vegetables are to be stored, it may be advisable to cover them with damp peat or sand.

Ventilation

Ventilation is needed mainly to control the temperature in the storage. Since the produce in the storage is still alive, it produces heat through respiration. Ventilation must be provided to remove this excess heat. A better temperature control will be obtained if thermometers are kept inside and outside the storage and ventilation is carried out only when the outside temperature is lower than inside.

Check Your Underdrain Outlet

by A. E. Banting

THE OUTLET of your underdrainage system is the most important single part of the whole system. Unless properly constructed in the first place and properly maintained, it can be the cause of a complete failure, consequently a little time spent in seeing that the outlet is functioning properly is a worthwhile investment. Moreover if the outlet is in poor condition it will pay to spend some extra time on it to put it in good order.

What Makes a Good Outlet?

Ordinary under-drainage tile are not satisfactory as outlets for a number of reasons. In the first place, being only one foot long they are very easily displaced should they be stepped on by animals. The ordinary field tile, while strong enough when protected by a covering of earth, will break under the weight of most farm animals. Secondly, even if adequately protected against damage by the farm animals, ordinary farm tile will not stand up to the freezing and thawing cycle to which they are subjected near the outlet. While freezing and thawing apparently does no damage to the tile buried under 24 inches or more of soil, tile within six feet or less of an outlet will frequently break down by lamination. Seemingly the freezing-thawing cycle breaks the tile material away in layers and finally the tile will collapse. The same thing may be observed in ordinary field tile allowed to remain on the surface of the ground over a period of years.

In the third place, even though the one foot tile may not be dislodged by animals, or broken down by freezing, if the outlet empties into a running stream, a portion of the tile may be undermined by the shifting of the stream channel, allowing it to move out of its proper position, sometimes causing a blockage.

A good outlet can be made using a wooden box, as shown in the illustration, or by number of different materials such as heavy iron pipes, galvanized corrugated pipe, vitrified clay tile, and the newer materials, such as No-Co-Rode pipe or Fransite pipe. Any of these will provide a fairly strong frost resistant outlet which will discharge the water from your tile system and protect the clay field tiles from frost damage.

Maintenance

Maintenance of outlets should consist of clearing away obstructions that form in the way of sand or silt beds placed over the mouth of the outlet, or weeds or other obstructions growing up which might cause the tile to slug. Sometimes a rip-rapp of fairly large stones covering the face of the banks through which the outlet projects will be helpful. If the outlet is placed at a point in the stream channel where there may be excessive erosion, a concrete bulk-head may be necessary. A description of a concrete bulk-head may be had by writing to the Department of Agricultural Engineering, Box 282, Macdonald College.

Locating Buried Outlet

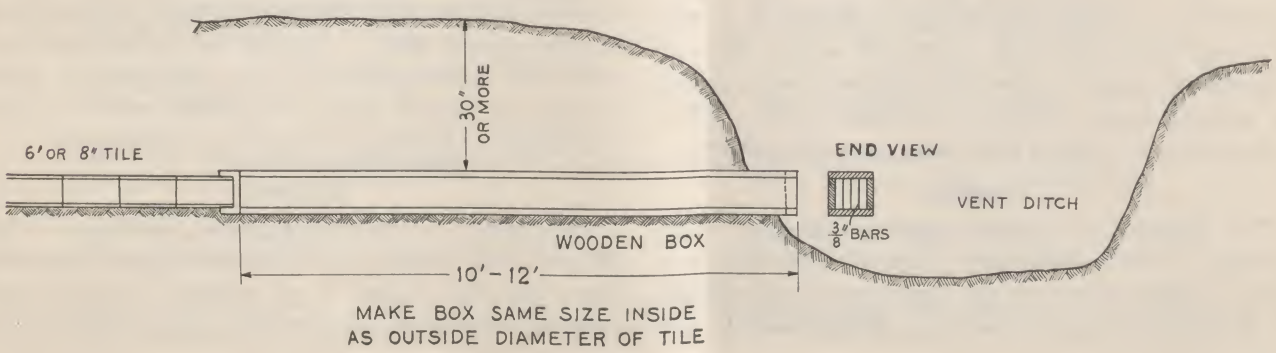
Occasionally an outlet can become buried and its exact location may not be known. This being the case, the easiest time to find the location of the buried outlet is in the spring. If the area where the spot to be located is examined carefully, it may be found that there is more moisture working to the surface of the ground at one point than over the rest of the area. Probing with an iron bar 5 or 6 feet long, and perhaps ½ inch in diameter is the simplest way of determining the location of the tile.

While using the bar as a probe, you are likely to encounter a number of stones if the area is inclined to be stony. Generally the difference between the field stones and the tile can be distinguished by the sound when the obstruction is hit. Once the tile has been located it can be verified by every six or eight inches along the line in the direction the tile is thought to run.

Clogged Tile

If an outlet has become clogged and the tile back of the outlet has been filled with silt, it may still be possible to bring the line back into operation unless it is on a very flat grade. It is not necessary to remove the entire line of tile by any means. The outlet can be uncovered in the fall, and in the spring stiff wires or rods can be worked up the line until water starts to come out. Once the water starts to run it will likely flush the tile out clean, unless the grade is particularly flat. In the latter case some assistance will have to be provided. The outlet can be flushed out for a considerable distance upstream by running a sprayer hose up the line with the nozzle open. This will loosen the silt and the water delivered from the nozzle will help to flush it out. Openings will likely be required about every 100 ft. or so, along the tile line to complete the job.

SUITABLE OUTLET FOR TILE DRAIN



Vibriosis in Cattle

by D. G. Dale

How important is this disease as a cause of sterility in Canadian cattle?

SUMMARY

1. **Vibrosis is a bacterial disease of cattle that causes infertility and the occasional abortion.**
2. **Diagnosis is based on herd history plus the results of several available laboratory tests. A fresh aborted fetus is the best diagnostic material.**
3. **The disease *can* be treated successfully.**
4. **The incidence in Canada is not definitely known, but it is probably of considerable importance. Farmers experiencing breeding difficulties with their cattle should consult their veterinarians with a view to discovering the cause. In no instance should an aborted fetus be buried or burned in a herd where "breeding problem cows" are common, until the veterinarian has had an opportunity to obtain samples for diagnostic purposes.**

THE BACTERIUM responsible for Vibriosis has been known for over forty years. It was first isolated from cases of abortion in sheep and shortly after from aborted bovine fetuses. For many years, veterinarians regarded the disease as one of the possible causes of infectious abortion in cattle and sheep. It has only been in the last decade, since workers in Holland suggested a relationship between the organism and herd sterility, that its true importance has been appreciated. At the present time it is felt that abortions are probably a far less frequent outcome of infection than the occurrence of many repeat breeder cows in the herd. Many research workers feel that vibriosis is a true venereal disease. That is, it is spread only at breeding time by an infected bull. A clean bull mating an affected cow becomes infected himself and then transmits the disease to all the other cows he serves. It must be realized, however, that the question of natural transmission of the disease is still not entirely settled and there are other workers who feel that the disease may spread in a herd, by means other than breeding to an infected bull.

Symptoms

As was previously mentioned it is now fairly well established that the main clinical picture or symptom of Vibriosis is most likely to be the repeated return to service, of many of the breeding females in a herd. Very often the heat periods are lengthened over the average of twenty-one days. This would suggest that conception or fertilization of the ova actually does occur but the fertilized ova is unable to develop beyond a certain point in the presence of the invading spiral shaped organisms. Thus, to the herdsman, the principal symptom is that of cows returning to heat at variable lengths of time after breeding. In some cases, apparently, pregnancy will persist in spite of the presence of the infection and it is from this group of cows that we encounter abortions. Vibrionic abortion can occur at any time during gestation but in the experience of workers in British Columbia it is most prevalent between the fifth and seventh month. The same investigators report abortion rates of three to seven percent in affected herds. Veterinary scientists in the U.S.A. report abortion rates of from four to twenty percent.

Diagnosis

The diagnosis of Vibriosis presents a number of difficulties at the present time. Several tests have been developed that depend on the demonstration of antibodies in the blood or vaginal mucous of affected animals. This is the same principle as that involved in Bang's disease testing. Unfortunately, the tests for Vibrio antibodies are not as simple to perform, nor are the results as reliable as those obtained in Bang's testing. A more definite diagnosis can be established if it is possible to obtain fresh material from an aborted fetus. Here, the technique involves actual demonstration of the organism on smears and by bacteriological culture. Since Vibrio fetus is a rather difficult organism to grow, a laboratory diagnosis is usually necessary.

As we have mentioned, the abortion rate in affected animals may be as low as three percent which means that the disease may exist for many months in the herd before an aborted fetus is available for laboratory diagnosis. Various workers have outlined methods of obtaining vaginal mucous for bacteriological culture. This method of diagnosis, while useful to the research worker, is not too well suited to the facilities of the veterinary practitioner. At the present time, a diagnosis in the field must rest upon the breeding history of the herd and the results of blood or vaginal mucous tests, unless an aborted fetus is available to submit for laboratory examination

Treatment

Fortunately, unlike Bang's disease, treatment is both effective and available for Vibriosis. It has been stated that since the disease is self-limiting, complete sexual rest for a period of three months is an effective method

of treatment as far as cows are concerned. The consensus of opinion is that this does not hold true for bulls. In other words, the infection will persist in the sheath and prepuce of the bull whether he is used or not.

From the practical point of view very few farmers would wish to delay breeding for a three-month period. It has been found that a number of the antibiotics are of definite value when introduced into the uterus of infected animals. There is a number of opinions as to the best time in the cycle to treat these cases. Treatment at one estrual period followed by breeding at the next is one recommended procedure. The infected bull presents still another problem. Successful treatment of bulls by the local application of antibiotic ointments to the penis has been reported. Artificial insemination using diluted semen treated with antibiotics and stored for six hours has also been claimed to prevent infection of cows bred to an infected bull.

The incidence of Vibriosis in Canadian cattle has not as yet been established. It is considered to be widespread in the U.S.A. and has been diagnosed in Canada in areas where laboratory workers have looked for it. It would therefore appear that this disease is a problem in Canada that deserves greater attention.

"Whittle"

— HOPE BROWN

Mrs. Hope Brown is a farm woman, mother of 9 children, who whittles figures from various kinds of wood, and in so doing, expresses some of her innermost feelings. She also likes to write verse though is very shy about it. This poem was rescued by her father from the fireplace where his daughter had thrown it to be burned. Mrs. Brown studied handicrafts at the John C. Campbell Folk School in Brasstown North Carolina, U.S.A.

Whittle, whittle all day long,
Whittle, with a happy song:

Bit by bit we take it down
From apple tree so hard and sound.

Fashioned with a knife the block;
Oh, it wouldn't do to stop

'Till at last the work's complete,
Shavings round us in a heap.

Thrilling is the work by hand,
Done to fill the world's demand.

All impressions from the mind,
In these carvings you will find.

Takes our mind from worldly care
While we carve an Angel fair,

Fills us with a thought divine,
Makes us want to be more kind.

Then the carving of the Child,
On it meditate awhile:

Worthy of the best of skill,
Fashioned with a tender will,

Carved from best of holly tree,
Oh, may it then a symbol be—

The wood so white,
The Child so pure.

To carve a cat to show content
To, me, that is a day well spent.

To carve a curve with patient care,
For some to see the labor there.

To carve a birdie on a rock,
Pausing in flight to a high tree top,

Makes me think, oh, lovely thing,
She's looking for a place to sing.

One by one the blocks take shape.
Then I hardly dare to wait

For the comment of my friends
When they see where whittling ends.

Shavings, shavings all around,
Sweep them up in one great mound;

On the table now we see
Lines and curves where once were these.

Planting Hints for

Spring-Flowering Bulbs

by **Patricia Harney**

ALMOST as soon as the snow has melted in the early spring the first diminutive snowdrops appear, to be followed by scillas, crocuses and muscari, then by narcissi and finally by the colorful, ever popular tulips. All this bloom is produced from bulbs planted the previous fall, and many of these bulbs remain in the soil, year after year, increasing in beauty as the years go by.

Crocuses

Crocuses may be planted in drifts along the edges of the flower borders, or they may even be planted in masses in the lawn because they bloom and are gone before the grass is long enough to require mowing.

They should be planted during the early autumn, spaced about 3 or 4 inches apart and at a depth of about 3 inches. After they have become established they will increase rapidly and may remain undisturbed for many years. They require no care after planting and will thrive in almost any type of soil, as long as it is well drained. Well-drained soil is a "must" for all bulbs as they will rot if they have to stand in water or wet soil for any length of time.

Narcissi

The narcissus is a much larger plant than the crocus and the bloom comes in white and varying shades of yellow. Jonquils daffodils are species of narcissi.

All spring-flowering bulbs produce their root systems in late summer and early fall and must be planted early enough so that these can develop before the ground freezes. Good flowers are dependent upon good root development. Narcissi are usually planted from mid-September until mid-October, although they may be put in later if the soil has been kept from freezing. This can be done with an application of a fresh manure mulch in October and then the soil may be covered again with this mulch after the bulbs have been planted. The manure must not come in contact with the bulbs. Each bulb should be covered with twice its own depth of soil and spaced from 4 to 8 inches apart, depending on its size. Care should be taken the bulb rest firmly on the ground so that the roots will not dry out.

In the spring, after the bloom is gone, the leaves should not be cut down until they have turned brown. These leaves produce food that encourages bulb development and the formation of little bulbs, or bulblets. If the foliage is unsightly in the perennial border it may be tucked under the foliage of the plants around it. Narcissi may remain in the soil for 5 to 8 years before the bulbs require lifting and dividing, the need for this is usually indicated by a reduction in the size of the bloom. As soon as the foliage turns brown, the bulbs are lifted, dried, divided and stored in a cool, dark, dry place until planting time in the fall.

Tulips

Tulips are at their best when grown in herbaceous beds with other spring flowers. They should be planted in masses of one color rather than as mixtures of many different colors.

Mid-October to mid-November is the ideal time for tulip bulb planting. The bulbs should be planted early enough so that they will develop a good root system and yet not too early as they are apt to start growing at once rather than the following spring. The cultural requirements of tulips are much the same as for narcissi except that they should be lifted every year. If they are left in the ground for several years the stems get shorter and the flowers get smaller due to overcrowding of the bulbs.

If, as is often the case, the space that the bulbs are in is to be planted with annuals after the tulip bloom has faded, the bulbs and foliage may be carefully lifted and "heeled-in" in some other part of the garden or in the vegetable garden until the foliage has turned brown and the bulbs are mature. They are then dug up, dried, cleaned, the tops cut off and the bulbs stored in a cool, dark, dry place for the summer.

Mulch

Bulbs, such as tulips, narcissi, hyacinths, etc., benefit from a mulch of manure, straw or evergreen boughs in the winter. This mulch will help maintain an even soil temperature, protecting them from excessive cold during the winter and preventing them from starting to grow too early in the spring. This mulch should not be applied until after the soil has frozen. If put on too early the bulbs are apt to be too warm and start growing in the fall and be killed when the shoots get above the surface of the mulch.

Only a few of the spring-flowering bulbs are mentioned in this article, there are many others that deserve a place in our gardens. None of them are difficult to grow and all of them are welcome harbingers of spring.

Production of Quality Eggs

The quality of eggs which reach the consumer is dependent on the adequacy of all members of a chain of individuals who are concerned with the production and sale of eggs. Important links in the chain are the breeder, producer, wholesaler and retailer; consumer acceptance of the product is dependent of different degrees on each of these individuals. Since the quality of an egg declines gradually from the time it is laid, it is evident that the first link in the chain is the breeder who produces the stock.

It has been demonstrated by research workers that strains of birds differ in egg quality factors such as albumen quality or thick white, shell strength and freedom from blood spots. Breeding has been found to be effective in improving these traits, particularly the first two. However, work at the Central Experimental Farm has shown that there is a negative genetic correlation between the number of eggs laid by a hen and their albumen quality. This means that a breeder could not select for high albumen quality in his strain birds without causing some decrease in the average egg production level. A strain is recognized mainly by its egg producing ability rather than by its inherent egg quality. Since much work is yet to be done in improvement of egg production, the average breeder cannot afford to place much emphasis on selection for albumen quality, unless it is at a low level in his strain. However, if the strain is characterized by a high incidence of inclusions such as blood spots, improvement by selection or other breeding methods would be important, since eggs with blood spots are an almost complete economic loss.

The next important individual is the egg producer. It is well recognized by now that egg quality deteriorates very rapidly if eggs are not cooled soon after laying and held in a temperature of 55 to 60 degrees F. Humidity of the egg room is also important, a relative humidity of 65 per cent being considered adequate. The producer has the responsibility of this and of all the other safeguards to quality, such as producing clean eggs, eliminating eggs with cracked shells and delivering his product, at intervals of 3 to 5 days, to the grading station. The premium which he is paid reflects his ability to do this.

The grading station operator plays an important role in the production of quality eggs. Under his supervision the eggs are carefully candled, graded, and stored in a suitable environment. If this is not done, the eggs which are handled by the grading stations will not

conform as closely as they should to the quality that was assigned to them in the grading operation.

The retailer is the final link in the chain. His responsibility is at least as great as that of the others, since the reaction of the consumer, favorable or otherwise, is largely associated with impressions formed in the retail store. If a storekeeper is selling eggs according to a specified grade, but is not maintaining the holding conditions necessary to preserve their quality, he is actually selling a product of inferior quality to that attributed to it by the label and the price. Thus, he is largely wasting the efforts of those who were involved before him.

In a program of improvement of market egg quality, attention should be directed first to the weakest link in the chain. If the genetic ability of the strain to produce high quality eggs is deficient, it should be corrected by proper breeding methods. However, unless the producer, wholesaler and retailer do their required jobs to maintain egg quality, the efforts of the breeder would be more efficiently used in selecting for other traits such as egg production. Proper care should, therefore, be given to improving the environment of the eggs in their journey to the consumer. Only when this is adequately done does it seem logical that breeders should pay more attention to methods of improving the average level of egg quality in their strains.

New aids for fruit and vegetable growers—

Growth Regulators

by C. D. Taper

ONE OF THE most interesting developments in Horticulture within recent years has been the rapidly increasing use of plant hormones to control various phases in the growth of crops. Although plant hormones or growth regulators, as they are called more accurately, have only been produced commercially within the last ten or fifteen years, botanists have known something about them for a long time. Darwin appears to have recognized the existence of these organic acids in plants in 1880. The hormones made by plants are something like animal hormones. In fact, the Sitka gall midget, an insect, knows how to make a hormone exactly like one made by the spruce tree to regulate its own growth. The insect, unfortunately for the spruce tree, makes too much. The result is a green tumor, as big as a pine cone, growing on the spruce twigs. This does not help the spruce at all, but the midget thinks it is all to the good; and, indeed, it is a remarkable accomplishment, for it has only been matched by the agricultural chemist of late years. Today, however, he has provided the farmers with a host of these chemicals.

Growth regulators have many functions. They can accelerate growth, slow it up, and sometimes even kill the plant. They can initiate rooting in cuttings. Often a single hormone can produce any one of these effects, depending upon the concentration in which it is used.

Increase Fruit Set

One of the earliest uses made of commercially produced plant hormones has been the application of a spray to increase fruit set in greenhouse tomatoes. During early spring, the anthers of tomato flowers can not shed pollen on the pistil because of its greater length under short day conditions. Ordinarily, pollen is necessary before fruits will form. However, plant hormones sprayed on the ovary will cause it to grow into a tomato. This fruit will usually contain more flesh and sugar than an ordinary tomato. It will contain no seeds, and is known as a parthenocarpic fruit. Many hormones have been used, always in low concentration. One of the best is the well known indolebutyric acid, although it requires a somewhat higher concentration of 500 parts per million in water. Beta naphthoxyacetic acid, 100 p.p.m. is also very satisfactory. Active acids such as 2-4 dichlorophenoxyacetic acid are used, but they are likely to induce such rapid growth in the leaves that they become distorted.

Hormone sprays are applied to tomato flowers as the last flower in the truss opens. Water sprays are usually employed. With water, a wetting agent, such as carbowax, must be used. Emulsion sprays of lanolin and water are sometimes employed. Aerosol bombs containing the hormone dissolved in a solvent of low boiling point, such as freon, have been used in greenhouses. The latter method does not always result in as large a crop of early tomatoes as the grower would wish.

Thining Apples

It has not been found satisfactory to induce fruit set in orchard trees by means of plant hormones. Nevertheless, apple growers have found other uses for organic acids. Two of the more important are the thinning of the blossoms when fruit set is likely to be too heavy, and the retarding of the formation of an abscission layer in stems so that there will be no fruit drop before the apples are picked.

Thinning is undertaken in order to reduce set and thus obtain larger, more marketable fruits. Thinning may be accomplished by spraying naphthalenacetic acid or its sodium salt at the calyx stage immediately following petal fall. The grower should note that this is a different practice from that employed in the case of elgetol or dinitro sprays, which should be applied when seventy-five

per-cent of the bloom is over. Varieties do not react alike to bloom-killing spray. Furthermore, temperature and rainfall have an effect. The results are not necessarily the same every year. Therefore, at present, it can only be advised that the grower follow the directions on the container and modify his treatments to suit local conditions as he gains experience. The safest policy is to slightly under-thin.

Reducing Pre-Harvest Drop

The pre-harvest dropping of apples is a problem familiar to all orchardists. The standard application for controlling pre-harvest drop of apples is either naphthaleneacetic acid or its sodium salt at five ounces per 100 Imperial gallons of water. These substances are sold under many trade names. Their use in Quebec has proven extremely successful. The time of application is important, for the hormone does not become effective until two days after it is applied. The peak of effectiveness is reached within a week. In this province it has been found satisfactory to apply harvest sprays to such varieties as Cortland and McIntosh about September 16.

Use on Potatoes

The effects of preharvest foliar sprays of Maleic hydrazide upon potatoes are amongst some of the more striking examples of the uses of plant hormones in agriculture. This acid is sprayed in a concentration of 2500 p.p.m. upon the growing crop 4-7 weeks before harvest. There is no reduction in yields. Sprout formation is inhibited during 7 months of storage at 45-55°F. Thus, higher storage temperatures are permitted. The quality of the potato is unimpaired.

All in all, plant hormones are proving to be some of the most useful chemicals a farmer can buy. Only a few of their uses have been discussed here; but, in the years to come, we may look forward to seeing even more wonderful instances of their effectiveness in increasing the ease of handling and the value of crops.

Leslie G. Young Appointed

The Quebec Farm Forum Association has announced the appointment of Leslie G. Young as Quebec Farm Radio Forum Secretary.

Leslie Young was raised on a farm near Compton, Quebec. He is a graduate of the Lennoxville High School and recently completed a Business Administration Course at the Park Business College in Hamilton, Ontario.

While at his home farm, Leslie was an active member of the Lennoxville 4-H Club and the Ives' Hill and Drapers' Corner Farm Forum. As a member of the Forum he attended the Macdonald College Christmas Short Course and served on the Farm Credit Study Committee, sponsored by the Quebec Farm Forums. Two years ago he participated in the Tri-County Leadership Forum at Compton.

Besides his experience in Quebec, he was employed on a fruit farm in the Niagara Peninsula for two years, and was recently employed by the Hamilton Health Association where he was in charge of exhibiting their pure-bred Ayrshire dairy herd at local fall fairs and the Royal Winter Fair.

Mr. Young attended the School of Community Programs at Camp Laquemac this summer. On September 1 he commenced his duties as Provincial Secretary of the Quebec Farm Forum Association.

Farm Forum Secretary

Boyd-Orr Urges Spending $12,000,000,000 to End World Hunger

It would take ten to twelve thousand million dollars to relieve hunger in the world.

That's the view of Lord Boyd-Orr, first Director-General of the Food and Agriculture Organization. In a radio recording made on a recent visit to United States, Lord Boyd-Orr said, "That's the lowest sum that you can relieve the world hunger with and if you do not spend that money to relieve the world hunger, the hungry people will ultimately pull down the rest."

The Former FAO Director-General urged that the various technical assistance schemes in the world be united and be operated through one international authority.

Lord Boyd-Orr felt there was no real surplus of food in the world. "In a world where two thirds of the people are hungry, there is no world food surplus," he said. "If the plans which FAO put forward in 1946 had been carried through, there would have been a big world reserve of food, with a big fund behind it, and in the countries where there was a surplus, that would have been bought and the farmers would have got the money and the food would have been sold to the countries that were hungry."

He said that if governments of the world use atomic energy wisely for peaceful purposes, it will hasten FAO's

objective to help nations improve their food resources. If atomic energy were applied to great industrial development, he said, it would take people off the overcrowded land and would provide industrial products needed to increase food production.

"The future depends upon whether the rulers of the world can have sufficient sense to get together to apply these great powers to create a great new world, or whether they will allow these powers to blow us up . . ." Lord Boyd-Orr said.

Speaking of the United Nations, Lord Boyd-Orr said, "The hope of the world is that the United Nations will gradually evolve into a world government that will be able to keep the peace, and able to get the nations to cooperate with each other in great world plans for the mutual benefit of all the nations and for the promotion of the welfare of all mankind. And they couldn't begin in a better way than by beginning to cooperate to double world food production to abolish hunger, and by that means bring about great economic prosperity.

"They will multiply world markets about four times and the representatives of the nations sitting around the table, instead of talking a lot of nonsense about communism and capitalism and socialism, but talking about concrete things like food where they know that they are talking about and cooperating in that for their mutual benefit. That can be the beginning—that, together with working through the World Health Organization and all the other Specialized Agencies of the United Nations. Beginning to work through these, you will begin to build the United Nations into a world government."

Water Hemlock Threat to Cattle

Water Hemlock is a weed, native to North America, that is extremely dangerous to livestock. The roots though small as walnuts, contain a poison which can kill an animal in fifteen minutes when eaten in the spring, reports the Field Crops Branch of the Ontario Department of Agriculture.

This is a perennial weed which can be distinguished by the purple joints and purple spots on the furrowed, erect and hollow stems which grow to six feet in height. The leaves are lance shaped, deeply toothed, compound and arranged alternately on the stem. The flowers grow in umbrella like clusters of dull white blossoms and appear from July to September. Water Hemlock is common in swamps, low ground, along ditches and the sides of rivers where it spreads by offshoots from the base of the stem or by its abundant seed.

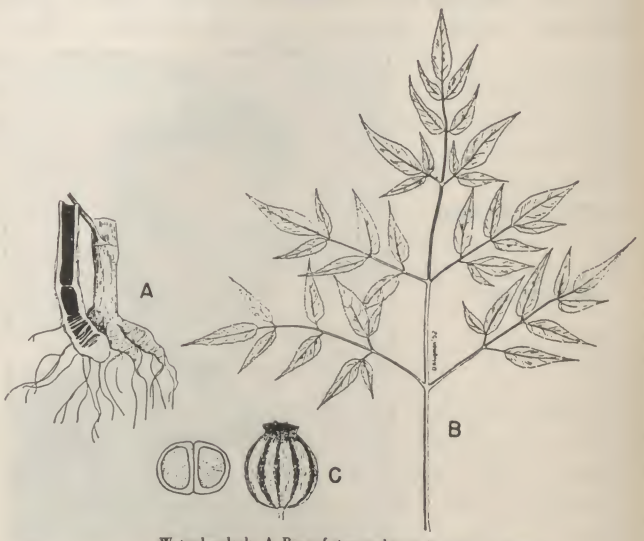
Water Hemlock is a member of the parsley family and is sometimes called musquash root, spotted cowbane or beaver poison. Although all parts of the plant contain poison, animals may eat limited amounts of the tops mixed with hay without ill effects. The roots have been known to cause poisoning in humans who have mistaken them for parsnips, artichokes or other edible roots.

The method of control most commonly used is hand pulling. Care must be taken to remove all plants from the water so that the poison cannot spread through that medium.

One application of 2,4-D can be used to control the top growth when applied at eight ounces of actual acid per acre. To kill the roots, however, several applications of 2,4-D at sixteen ounces of actual acid per acre may be required. 2,4-D should only be used while the plants are growing.

When the plants are killed by chemicals the tuber-like, fleshy, spindle shaped roots remain in the soil. Livestock, attracted to them by their strong odor, could still become poisoned by eating them. The symptoms of poisoning from Water Hemlock are laboured breathing, followed by violent convulsions, frothing at the mouth, loss of sight, diarrhea and great pain which frequently ends in death.

In order to avoid loss of livestock all areas infested with Water Hemlock should be located and the animals kept out of the area until all the plants, including all of the roots, are removed and totally destroyed.



Water hemlock. A, Base of stem and root. B, Leaf. C, Fruit.

7,000 Pounds of Milk Per Acre

An average of 7,000 pounds of 3.4 per cent milk per acre has been produced by E. S. Brigham on his farm near St. Alban's, Vermont, largely through scientific pasture management.

This compares with the Ontario average of 2,000 pounds per acre and much less in Quebec.

The Brigham farm consists of some 260 acres of crop land and 180 acres of rough pasture. The latter is estimated by Brigham to be equivalent in carrying capacity to about 60 acres of crop land. His herd consists of 125 milking Jerseys and an equal number of young cattle.

During a recent visit to the farm by representatives of C.I.L.'s farm advisory service, it was learned that to maintain the high rate of milk production, Brigham uses a three-crop rotation of corn, oats (as a cover crop) and hay. Grass is kept down for about five years, although this varies with the seasons.

Thirty acres of corn are grown for silage and fertilized at the rate of 300 pounds of 8-16-16 per acre plowed down and another 300 pounds of the same mixture applied with a planter. Later, a side dressing of 150 pounds of ammonium nitrate per acre is used. Following corn, oats is grown as a nurse crop. This is fertilized with 200 pounds of 8-16-16 applied through the drill with the spouts off. This ensures good establishment of grasses and clovers (ladino, alfalfa and brome) for hay and pasture.

After each cut of hay the sod is top-dressed with 150 pounds of 5-10-10 per acre. Pastures receive an annual application of 500 pounds of 8-16-16 or 0-15-30 per acre and provide the bulk of roughage from early May until frost comes in October. Any pasture supplement required is provided by corn silage. In addition to providing hay and pasture, grassland fills six silos each year.

This quality roughage feeding is supplemented by 16 per cent protein grain fed at an average rate of one pound protein to three pounds of milk.

Livestock Marketing Board Plans Turned Down in Saskatchewan, Manitoba

"Lack of Understanding"

Following the extensive series of hearings in the province, the Saskatchewan Marketing Board has recommended against a proposed livestock marketing plan being established. The Saskatchewan government has accepted the recommendation.

The Board's statement said that "In view of the lack of understanding by producers of the purpose and intent of producer marketing boards and the lack of a sufficiently representative demand for the establishment of the proposed livestock marketing plan as shown by public hearings, the board respectfully recommends that it is not expedient to establish the plan."

A provincial livestock marketing plan submitted by the Manitoba Farmers' Union also was rejected by the Manitoba Government. First submitted last December to the Manitoba Marketing Board, the Board had ruled that it was not inconsistent with the provision of the Natural Products Marketing Act, and on this basis referred it to the Cabinet for a ruling.

In a quite lengthy report, the Saskatchewan Marketing Board commented that it believed there existed in Saskatchewan a lack of understanding of why legislation providing for producer marketing boards had been placed in the statutes of most provinces, and why Federal complementary legislation had been passed. It pointed out this was the first proposal for a major product to be put before the Board. "It was equally surprising", the Board commented further, "to find so many voicing strong opposition to the plan because they felt it to be undemocratic. This is further evidence of the lack of understanding of the intent of the legislation enacted both by the legislatures of various provinces and by Parliament."

DEPARTMENT OF AGRICULTURE

Activities, Plans and Policies of the Quebec Department of Agriculture

A Record Cattle Show at Sherbrooke

IF THEY had had any more dairy cattle at Sherbrooke they would have to have put them into tents, for practically every available stall was taken up by one of the biggest livestock shows ever to be seen at the exhibition. The Jersey show, with about 135 head entered, was the largest and the best ever seen at Sherbrooke and brought out some herds showing here for the first time, as well as others coming back after absences of two or more years. Holsteins had 116 head out, Ayrshires 95, Canadians 45 and Gurnseys 33. And these figures do not include the animals in the calf club section of the fair which added another 90-odd.

Sheep at 171 head were down in quantity and not too high in quality, and the hog show was away off at only 50 head. Possibly the fact that breeders lost some stock to the heat at earlier fairs during the late summer had something to do with the small numbers. Brother Odon of the St. Benoit Monastry had his Yorkshires out in force, and considering that his experience with raising pigs is limited to what he has been able to learn during the past four years since he entered the order he has been doing remarkably well. He brought some hogs to Sherbrooke last year and went away with a championship and three firsts. This year he did even better, as the results below indicate.

Vegetables, honey and maple products were shown in good condition and to good advantage in the two wings of the Arena building, which is a great improvement over the rather cramped quarters allotted these items a few years ago before the new construction was made. And the poultry building was once again filled to capacity. In horses, there were some 45 heavies, 20 light horses and a dozen ponies.

Local merchants always make a point of taking booth space in the Industrial Building to advertise their wares, but there were slightly fewer occupied booths this year. Even so, there were 125 exhibitors in this building, and another 20 exhibits of farm machinery, fire-fighting equipment, power saws and so forth were spotted on the grounds nearby. One department conspicuous by its absence was automobiles.

The Federal Department of Agriculture in its booth featured hog production with a display urging the use of bacon-type boars to produce lean hogs. Quebec's Department of Lands and Forests had the largest exhibit, which showed the good things that can happen when no forest fires occur. Ducks were swimming happily in a miniature lake surrounded by green trees and a pair of campers were preparing to cook a mess of fish presumably just taken out of the water. Agriculture, Mines, Handicrafts School were also represented with well prepared displays.

We have mentioned in reports of other fairs a depressing lack of interest on the part of the general public to attend. This same lack of interest was again evident at Sherbrooke around the judging rings, but spectator attendance for the fair as a whole was away above normal, and the grounds were crowded even in the mornings. Sherbrooke always goes out of its way to provide good entertainment, and this year was no exception. Band concerts, races, an excellent grandstand show, armed forces displays, all combined to give the average fair-goer something of interest, whoever he might be.

Sheep and Hogs

Three exhibitors were out with Yorkshires but the competition was between Brother Odon of St. Benoit du Lac and A. Sevigny of Princeville. Brother Odon had the senior and grand champion sow, the grand champion boar and the reserve junior sow, along with firsts in 5 other classes. Sevigny took 8 regular classes, junior boar

No hurricane at Sherbrooke this year: the fairgrounds were crowded all the time.

and reserve, the junior sow and the reserve senior sow. Fowler had the reserve grand champion boar.

J. A. Woodward Estate took all the classes with Berkshires except one, Ashley Stalker entering two on the classes only and winning one. In Tamworths only O. A. Fowler showed.

La Ferme Manasan at Danville had the only Suffolks, and took all firsts but one with Cheviots. This exhibitor also had the champion Southdown ram. Stony Croft Farm were also showing Southdowns and had the reserve ram. N. G. Bennett had all but one firsts in Hampshires, won three classes of Southdowns, and Bennet entries took most of the Oxford awards, the rest of which went to Manasan Farm. The Woodward Estate was the only exhibitor of Shropshires.

In Leicesters Ashley Stalker dominated the field, two firsts going to Ant. Sevigny.

Along with most of the exhibitors who come to Sherbrooke year after year, a number of new herds, or herds which have not been out for some time, were on show. An Ayrshire breeder new to Sherbrooke was Raymond Beaudry of Granby, and in Holsteins Bruno Pepin, Raymond Gladu and Lemieux were new faces. M. Chamberlain re-appeared after an absence of two years. Jersey breeders J. B. Pangman, W. H. Miner and Stuart Webster also brought their herds along this year.

Major Livestock Placings

In the Jersey classes, top honours were divided among five herds. W. H. Miner had the senior and grand champion bull, Nyamakad Farm at Melbourne the reserve senior and grand bull and the reserve junior female. Pierre Veillon of Sweetsburg had the junior bull and the senior and grand champion female. J. B. Pangman of Cowansville showed the reserve senior and grand and the junior female and Mrs. A. Virgin or North Hatley the reserve junior bull. Veillon's stock won the senior herd ribbon, Pangman the senior get of sire and the progeny of dam, and Mrs. Virgin's two group wins were junior herd and junior get of sire.

In Guernseys, P. M. Fox took all the championships but one, the reserve junior female which went to Bower Booth of Lennoxville, and all the group classes.

Douglas Johnston of Stanstead had the senior champion bull and the reserve senior and grand champion female, and took three of the group classes in the Ayrshire placings done by Alastair McArthur. The grand champion bull was shown by Roger Beaudry of Granby who also had the junior champion and the junior herd prize. S.A. & V.H. Mount of Brome had the reserve grand champion and the reserve junior in the bull classes and the senior and grand champion female. A. B. Lyster had the junior and John Ride the reserve junior females.

The top Holstein bull came from the Wales Home Farm herd, and Murph. Chamberlain celebrated his return to the Sherbrooke arena by taking the ribbon for the senior and grand champion female. G. Gladu of Sutton had the junior and reserve grand champion bull, the junior female and the junior herd. Philippe Pepin of Victoriaville showed the reserve senior bull, the reserve senior and grand female and won the senior herd class. Elmer Crack of Kingsbury had the reserve junior bull, Bruno Pepin the reserve junior female. R. Lemieux of Arthabaska had the senior get of sire and the progeny of dam classes. Holstein judge was L. A. Beaudoin.

In the Canadian classes, veteran O. A. Fowler took all the group awards and most of the championships. H. F. Baldwin of Coaticook took reserve for senior and grand championship in the bulls and E. M. Baldwin the same in the female classes.

In the heavy horses classes, W. H. Duffy of South Durham had the champion Clydes, Marc Ryan the champion Belgian mare and Ed. Proteau the stallion. E. Webster had the mare and R. Bernier the stallion in Percherons.

Gas Storage of Apples

Gas stored McIntosh apples are now enjoying a premium over fruit stored in the conventional way. W. R. Phillips, of the Central Experimental Farm, Canada Department of Agriculture, in Ottawa reports that this premium is willingly paid by the consumer to obtain sound fruit.

It is an unfortunate fault in McIntosh that they frequently become brown at the core during the latter part of their storage life. The fact that such apples appear sound when purchased creates a feeling of deception in the mind of the purchaser. This state of affairs has had a very depressing effect on apples sales.

Gas storage gives promise of correcting this condition. The higher temperatures and the gas concentrations used in gas storage controls the onset of this internal core disorder, thus extending storage life.

Gas storage consists of placing the apples in a refrigerated air-tight room. For the McIntosh variety, the temperature is controlled at 39 to 40 degrees F. The normal breathing of the apples results in a depletion of the oxygen and an increase in carbon dioxide. The concentration of these gases is controlled at an experimentally determined level of 5 per cent carbon dioxide, and 2.5 per cent oxygen. Storing apples under such conditions is referred to as gas storage.

Operating and construction costs are higher for gas storage than the conventional refrigerated storage. Because of this it should be restricted to a very small percentage of the crop. Nevertheless a storage unit could profitably have 10 to 15 per cent of its McIntosh capacity converted to gas storage.

Shorthorn Picnic Was Well Attended

An attendance of over 400 persons at the Quebec Shorthorn's second annual field day and picnic indicates the extent of interest in beef cattle farming in Quebec these days. Held on C. C. Warner's farm early in August, the field day was marked by the presence of a considerable number of young people, members of beef clubs in the Eastern Townships; a sign that the boys and girls who will be carrying on in their parents' footsteps are starting off on the right foot.

The Warner farm, a few miles outside Lennoxville, was a happy choice for the picnic. Mr. Warner and his family spared no effort to make the visitors welcome, and the early part of the day was spent in touring the property, admiring the well-kept buildings, looking over the 235 head herd and taking a look at the assortment of machines that make work on this farm a far cry to what it was in the pioneer days when Mr. Warner's ancestors first cleared the property.

The serious business of the day started after lunch (everybody brought his own and the ladies of the Ascot W.I. served coffee and ice cream to all comers) with a demonstration on Shorthorn type by Ab. Stoltz and J. A. Ste. Marie. Then everyone had a chance to try his or her hand at judging two classes; one of adult cows and one of yearlings. Jean Marie Pelletier of Inverness, Erwin Watson of Bury and Edgar McCurdy of Lennoxville had the three highest scores in the class for contestants over 21 years of age, while in the ladies' class Mrs. Roy Harrison of Bury and Mrs. T. C. Stuart of Arundel took top scores. Among the younger judges Ronald Bell of East Clifton, D. L. Smith of Lennoxville, Wendell Gaulin of Bury, Gordon Garfat and Billy Woodward of Lennoxville were the top five scorers. A special prize for high boy was won by Terry Lowry of Sawyerville and the girl's prize went to Betty Painter of Island Brook.

Armand Ouellette brought greetings from the Department of Agriculture, reminding the club members that the Department's subsidy on the purchase of breeding stock applies to beef cattle as well as to dairy cattle; a policy which is of considerable benefit to those just starting out in beef cattle breeding. He noted with satisfaction the way Shorthorn breeding is increasing in Quebec.

Hon. Patrice Tardif was an interested spectator of all that went on during the day, and took the opportunity of congratulating Shorthorn breeders on their advances in the past few years. He urged concentration on a single breed, and while he felt there was room for improvement in quality among the local herds, he felt amazed that so much improvement had taken place within such a relatively short time. He hoped the time would soon come when the Montreal and Toronto markets would be depending on Quebec for their supplies.

Agronome MacDougall had a word to say about Mr. Warner's farming methods, pointing out that he was producing the best type of roughage; silage and pastures were splendid. In spite of the dry weather that prevailed during most of the summer, a beautiful field of clover just in front of the house gave point to his remarks.

Dr. Mercier, whose experience at the Lennoxville Experimental Farm makes him an authority, also felt that Quebec herds, while good, could be still better. New breeders, he emphasized, must start with good stock to begin with. The breed is not important; but what is important is that the farmer choose a breed with which he will enjoy working, and that he plan his operations so as to feed as much roughage and as little grain as possible to get the results he wants.

Adrien Morin was amazed at the number of people present, and could remember the time not so very long ago when a field day for all beef breeds would not have brought out so many people as were attending this one. He also stressed the management side of breeding, and was optimistic about the marketing situation.

Shorthorn breeders should talk more about the breed, thinks Fieldman Ab. Stoltz. There is not enough beef in Quebec to supply the market, he thinks, and, naturally, feels that the increase should be made of Shorthorns, the breed that is docile, good milkers, and easy to feed to market weights.

J. A. Ste. Marie, retired as superintendent of the Experimental Farm but still as busy as ever in farming activities, was worried about the shortage of breeding stock. He can see a big demand in the not too distant future, but is at a loss to tell a prospective buyer where he could get the animals he needs. He was sure that every breeder should be raising more animals just to be able to supply the demand that seems bound to come.

Experts and novices alike took a whirl at the judging contests; and most of the people behind the fence had cards in their hands.

Taking a prominent part in the activities were Fieldman Don MacMillan, President N. G. Bennett, J. A. Ste. Marie and C. C. Warner.

President N. G. Bennet and Secretary Don MacMillan should feel well satisfied with the results of the efforts they put into organizing this most successful event, which a bright, sunny day made all the more enjoyable. Shorthorn breeders are a keenly interested crowd, and we look forward to more and even larger such days in the future.

Don't forget to come to see Quebec's finest beef cattle at the winter fair which will be held at Sherbrooke in October from the 10th to the 13th.

A Successful New Venture

An auction sale of hogs, the first such effort undertaken by the Nicolet Hog Breeders' Association, proved so successful that it will likely become an annual feature.

Two hundred and forty-nine hogs, all in excellent shape and all eligible for federal bonus, were offered for sale in 38 lots of 3 and 27 lots of 5. The winning pens in each class, shown by Wenceslas Thibodeau and Judes Descoteaux of Ste. Perpetue, sold 50¢ and 34¢ respectively to the Co-operative Federee, which was represented at the sale by Em. Masse, manager of the Quebec-West Abbatoir of the Federee, and L. Dionne of Princeville.

The average of the sale came to just about 2¢ over current market prices, and a few lots of young sows went to breeders for anywhere from 33¢ to 44¢ a pound. The largest buyers were Modern Packers and the Co-operative Federee.

The various lots were graded by George Mayrand of the Quebec Department of Agriculture, who was impressed by the general quality of the offerings. Helping out were Jos Labissonniere, Marc-Aurele Dionne, Armand Joubert and Louis Baribeau. Napoleon Mercier, breeding specialist for the Nicolet district, whose work in hog improvement policies is well known, was the prime mover in organizing and conducting the sale.

Good Show at Victoriaville

According to the Hon. Wilfrid Labbe, the Bois Francs region of Quebec is one of the finest farming districts in the province, and the one in which the most progress has been made during the past twenty-five years. And the livestock that was on display at the Victoriaville Fair in August bore out his statements.

Holsteins to the number of 256, with 139 Ayrshires, a herd of Jerseys and a good hog show, made up a splendid livestock exhibit, and milk and its products were the feature of the fair. Co-operating in the dairy exhibition were the Department of Agriculture's Dairy Division and various local enterprises, all of whom put up exhibits showing what can be done with milk.

The show opened with a monster parade, led by a brass band, with all the local dignitaries taking part. The parade was complete with decorated floats prepared by the district milk processors, and featured, as the final float, Her Majesty the Dairy Cow.

On the grounds the emphasis was on farm machinery, and especially dairy equipment of which practically everything was on display. In the main building of the fair grounds were splendid showings of vegetables and other field crops, honey and maple products, plus the exhibits of dressed poultry and the booths of the Shawinigan Water and Power Company and of the Quebec Electricity League, which had on display a complete farm in miniature, showing all the places where electricity could be of service.

4-H Eliminations On A Different Basis This Year

There were slightly fewer junior judges out for the Provincial eliminations to determine the teams that will represent the Province of Quebec at the Royal in Toronto in November. Eighteen teams, comprising 36 boys and girls were entered in the dairy cattle judging section and only two teams of hog judges. There were no sheep teams at all.

The teams competeting represent the top junior judges from each districts, selected through preliminary elimination contests held earlier in the summer. In past years, the two making up the winning team, i.e., the team with the largest total score, were the Quebec representatives. The system changed this year, however, and the two contestants with the highest individual scores make up the team for Toronto, whether they belong to the same provincial team or not. This sounds to us like a good move, for it will send to the national contest the two individuals in the province who have shown they know most about cattle judging. The Sir Henry Thornton Trophy, however, is still won by the club team that places first in the Sherbrooke judging.

The two top scorers were Elwood Hodgins of Shawville, with 553, and Lucien Dominique of Brome with 514; these two will be our representatives at Toronto.

The Shawville team placed first in the dairy cattle division, with the Brome team in second place, Howick third, Baie du Fever fourth and Lennoxville fifth. Elwood Hodgins, as top scorer at the meet, won the Stephan Boily Trophy.

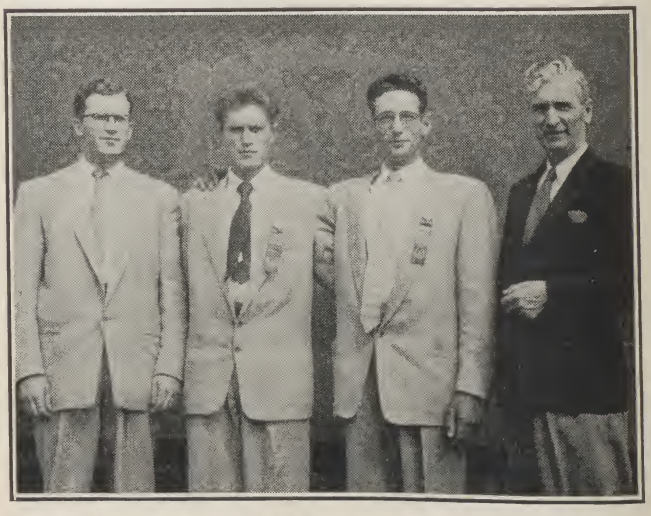
In the hog judging section the team of Germain Rioux and G. Petigrew took top honours with a team score of 910, with the St. Gilles team of N. and M. Montminy in second place with 832.

Steve Boily presents his trophy to Elwood Hodgins of Shawville, top junior dairy cattle judge.

Administration to be changed

At the banquet held in the Noe Ponton Agricultural School, at which the awards were formally announced and the trophies presented, Henri Tremblay, federal fieldman for livestock work in Quebec, junior section, announced that starting next year the responsibility for the junior work would pass to the provincial agronomes as is already the case in other provinces. He also announced that various Sherbrooke Service Clubs had undertaken to furnish the Coderre Building on the fair grounds, used as headquarters for the juniors, with pictures and comfortable chairs.

The Shawville team of Elwood Hodgins and Ellard McBane with the Thornton Trophy.



Laval Labrie, agronome at Riviere du Loup; Germain Rioux and G. Petigrew, the top hog judging team; Henri Tremblay, federal 4-H fieldman for Quebec.

Junior Showings

Apart from their activities in the judging contests, some 90 4-H members put on a livestock show of their own; the regular calf club competition open to members from the countries comprising the Eastern Townships. Holsteins, Ayrshires, Jerseys and Guernseys were all represented by exhibits that evidenced the care with which their young owners had prepared them for the big day.

Rosario Nadeau of Waterville topped the senior Holstein calves, showing the grand champion and Guy Nault of St. Claude was runner-up. Rene Ruelle of Waterville had the best junior calf, and Roland Labissoniere of Princeville took the award for grade Holsteins.

In the Ayrshire show, it was Jack Ride from Hatley with the champion and Harris Sheffield of Brome with the reserve. Roland Horner of Cowansville had the junior Ayrshire and Allen Horner the top in the cross-breds.

The two Hadlocks of Brome, Allan and Weldon, had the champion and the reserve in Jerseys; in the Guernseys classes the junior top went to G. Sarrazin of Hatley, the senior to Robert Bowers of Lennoxville. Sarrazin had the champion and Art. Reynolds, Brome, reserve.

The Waterville club took the prize for the group class in Holsteins, the Hatley club in Ayrshires, and the Brome club in Jerseys and Guernseys.

A showmanship contest is always held in conjunction with the other junior activities. Dr. Toupin was the judge here, and Martha Coates from Lennoxville won out in the class for junior under the age of 15. In the senior section Roland Nadeau and Rack Ride placed first and section Roland Nadeau and Jack Ride placed first and pion showman respectively.

Junior contestants and fair officials pose for their photo in front of the Arena.

Bee-Keepers Study Their Business

On August 16 the first of four study-meetings devoted to plans and problems of bee-keepers was held at St. Martine, with about 150 interested people present. The other three were held at Montebello, Chicoutimi and at Lac au Saumon, all organized by the Bee Division of the Department of Agriculture.

At the Ste. Martine meeting the first item on the programme was a tour of the model laboratory operated by the President of the Association, Louis Bosse, examination of a display of equipment and of the Benoit maturing process.

The meeting divided into three groups after lunch. The English-speaking group met with Simon Deschenes, Quebec's bee expert, while those with little or no experience in the profession met with J. E. Benoit. The more advanced operators took part in discussions by Mr. Bosse on ways and means of assuring strong colonies at the end of winter, by Roch Caron on the raising of queens and by Henry Plourde on over-wintering of colonies both indoors and out.

Jules Methot, Chief of the Bee Division, pointed out that bee-keeping gives the highest returns of any farm exploitation in terms of invested capital. But bee-keepers are not a static group. Every year some established apiaries go out of production and new ones start up. Many of these newcomers are in need of help and advice, and study days, planned especially for their benefit, should be organized more frequently.

To his group of novices, Mr. Benoit pointed out that colonies could be started by buying package bees, or by buying healthy colonies from an established apiary; the Department of Agriculture is prepared to furnish lists of bee-keepers with stock to sell. He warned against starting out on too large a scale; get a few bees to start with and learn the business before taking on more than can be handled at the beginning.

Mr. Bosse showed that honey production is proportional to the vigour of the colonies, and that the colonies must be built up quickly. Queens, it has been found, can lay 1500 eggs a day, and her egg-laying should be at a peak by the 10th of May. To achieve this, the hives must have come out of the wintering period in top condition so that the bees will be ready to make the most of the early bloom.

Since this was written we have learned with regret of the sudden death of Mr. Deschenes on September 1st while en route to judge honey at the St. Lazare fair.—Ed.

Waterloo Had A Good But Wet Fair

Waterloo put on one of its better fairs this year, with a larger entry list than ever before, but after a summer of endless fine days and hot weather the long-looked for rain finally came just in time to spoil two of the three days of the show and cut down attendance of spectators. Opening day was marred by a heavy storm which struck in the middle of the afternoon, closing down the Midway and holding up judging in the arena when the power failed. The second day was fine and sunny and good crowds turned up; but the last day was another wet one and practically nobody showed up at the fairgrounds except those who had to be there.

From the exhibitors' side, however, there was little to complain about; entries were impressive and numerous; most of the "regulars" were out and there were a lot of new exhibitors as well; a happy sign for the future of the fair which opens the fall exhibition circuit in the Townships. The livestock suffered at the beginning from the oppressive heat; hogs were being hosed down to keep them cool, hens and ducks were complaining noisily about the heat and the sheep looked as though they wished they were back home. However, there were no reports of fatalities; merely of discomfort.

Sheep were in a minority this year, with only 9 head on show; Oxfords shown by C. H. Parsons of Sweetsburg and Leicesters by J. A. Lataille of Farnham Centre. Andre Ares, J. A. Lataille, Chapman Bros. and the Benedictine Monastry at St. Benoit du Lac showed 33 head of hogs between them, with the bulk of the prize money going to the Monastry entries.

Poultry completed filled the space allotted to them, with the large prize winners being G. A. Booth of Waterloo with 25 firsts and J. A. Lataille with 20.

B. A. Ryan, L. Hadlock and L. de Garston were out with Jersey herds, Ryan entries taking 19 first prize ribbons all groups, and the rosette for the grand champion bull, de Garston showed the grand champion female, and won four regular classes.

Waterloo's outdoor, open cattle pens work fine in good weather, but rain can make things a little complicated.

Seven exhibitors showed Ayrshires and in these classes the entries of S. A. & V. H. Mount dominated with nine firsts and the grand champion bull, the female championship going to Chapman Bros. Three Holstein herds were out but John Beerwort and Lucien Dominique saw most of the ribbons and the two championships go to the G. R. Gladu entries. Beerwort won 5 classes and the prize for best herd.

Guernseys were shown by P. M. Fox, F. Sanborn and J. A. Lataille, but the Fox entries took most of the awards including the two championships. A. Edoin of Farnham had the only herd in the Canadian cattle section.

A three-day horse show, one of the best ever staged at Waterloo, was particularly successful with 35 stables competing, and while day-time attendance was at a record low, due to the bad weather, crowds at the evening horse shows compensated for the poor attendance otherwise.

Judge L. H. Hamilton looks over one of the entries from the Monastry at St. Benoit du Lac, whose stock is beginning to appear regularly at exhibitions.

Merit Agricole Winners Announced

Romeo Sedillot, a dairy farmer of St. Mathieu in Laprairie County, is the gold medallist in Quebec's unique farming contest, his farm placing first among fifteen that were entered in the contest for the gold medal. With a score of 91%, his standing was 8% above that of the runner-up, Laurent Bergevin of Howick. Placings of those in the gold medal portion of the contest were as below, based on a possible 1000 points:

Romeo Sedillot, St. Mathieu	**910**
Laurent Bergevin, Howick	**902**
Henri Brault, Ste. Martine	**895**
Moise Riendeau, St. Remi	**890**
Adrien Laberge, Chateauguay	**884½**

Alcide Sauve, St. Timothee	881
Henri Dion, Ste. Therese	887½
Stuart Armstrong, Lachute	875
Alex. Robert, St. Michel	874½
Clement Lemire, St. Roch l'Achigan	873½
Roland Ouellette, St. Janvier	873
Leopold Corbeil, St. Antoine	870
Honore Perras, St. Isidore	867
Jules Labreche, St. Roch l'Achigan	852
Jonas Charbonneau, Ste. Therese	808½

Fourteen farmers were entered in the silver medal contest, and twenty-one farmers obtained bronze medals. More about the contest and the winners will appear in our next issue.

Pomologists Visit Ontario

Quebec's pomologists travelled farther afield then usual this year for their annual summer meeting. They went to Ontario to have a look at the trial orchards at the Federal Experimental Substation at Smithfield and meet a few growers in the Trenton area. The meeting came just at the peak of the heat wave and the trip was a long one, but a satisfactory number of French and English speaking growers made the trip and, adding in local growers who had been invited, there was a total of some 200 on hand for the meetings.

Variety trials at the Smithfield station were looked over while Don Blair described what was being done to find (a) a red variety earlier than Melba with at least as much quality; (b) scab resistant strains with commercial possibilities (c) desirable hardy rootstocks and stem-builders for apple trees. The growers also were shown a pruning experiment designed to check the value of heavy, medium and light pruning. Results are not expected immediately, since the experiment began only last year.

A tour of several nearby orchards concluded the outing. In our photograph Don Blair is using a chart to illustrate his remarks.

Ayrshire Breeders' Hold Picnic

Some four hundred Quebec Ayrshire breeders gathered at Lac Vert in August for their annual provincial field day, which followed the traditional pattern of general get-together, judging contests, demonstrations, etc. President Napoleon Plante was master of ceremonies.

One item of the programme which aroused a lot of interest was the junior judging elimination contest in which 32 clubs took part. The Armagh Club team of Andre Chamberland and Louis George Lemieux won the right to represent the district at Sherbrooke for the Provincial finals, with East Broughton in second place.

Camille Bouchard gave the classification demonstration and Francois Boulais ran the open judging contest, while Nicholas Kelly, at the afternoon session, conducted a study and discussion on the merits of the Ayrshire.

Henri Tremblay, federal officer in charge of junior work in the province, made a strong appeal to the parents present to see that their children had every chance to take part in junior club activities, to bring them to meetings such as this one and to do everything possible to encourage them to follow in their parents' footsteps in a farming career. Young people must be encouraged in every way to stay on the land, and the more they can learn about modern methods of farming, the more contented they will be in their profession.

Pierre Labrecque pointed out that good herd sires are of prime importance in any programme of breeding to improve milk production. "Average production in the herds of Quebec," he said, "depends on the improvement that can be brought about by the use of bulls of proved ability." There are not nearly enough really good dairy cows in this province and there is a great deal of room for improvement. He promised every assistance from the Livestock Branch at Quebec to anyone wanting to ask for it.

Nazaire Parent dealt with crop production, and particularly with the problem of mechanization. "At the present time in this province," he said, "mechanization is a pressing problem, for machinery costs money, and only with high yields can the cost be justified or even met." He urged every farmer present to plan his cropping programme to fit in with his livestock holdings.

Hail Damage Assessed

Last June a violent hail storm carrying hail stones as large as 2¼ inches, ravaged the tobacco plantations in the Joliette area, around St. Thomas and Lanoraie. Conrad Turcot, Chief of the Tobacco Division, has made a survey of the damage and estimates a loss of something like $125,000 to growers whose fields were in the affected area. This figure does not take into consideration destruction to greenhouses and frames, which suffered severe damage to their glass.

On 26 farms at St. Thomas, 821 out of a total of 1593 acres were affected, with an estimated loss of 12%. Ten farmers lost all their frames and three had to replant

their fields. Damage at Lanoraie was a little less; here, on 16 farms, 531 out of 770 acres were damaged with losses estimated at 8½%. Three farmers lost their frames and two had to replant.

Nevertheless, according to an estimate made later by Fernand Godbout of the Plant Protection Division, crop losses at harvest time will not be serious due to hail damage. However, early September frosts have damaged many fields.

Press reports of the damage, made at the time, ranged as high as half a million dollars and mentioned that some farmers might lose as much as $80,000. These figures were considerably exaggerated, as will be realized when it is remembered that a crop on a good farm in that area will be worth between $20,000 and $30,000 at the most. It was also reported that insurance relief would be small; this is not in accordance with the facts; at least half the St. Thomas farmers recovered almost their entire loss through their insurance policies.

A Canadian Get-together

The Provincial Farm School at Deschambault, directed by Andrea St. Pierre, was host to over 1200 breeders of Canadian cattle on the occasion of their annual field day held during August. While most of the day was given over to discussion and judging of dairy cattle, a parade of Canadian horses from the Farm's stock proved to be most enlightening. Commenting on horse raising, Mr. St. Pierre pointed out that even with so much power machinery being used, horses are still popular with many farmers, and the Farm receives requests for horses at the rate of about five a day right through the year. Heavy draft horses are being replaced by self-propelled machines, but there will always be place on the farm for the general-purpose horse, he claimed.

Andre Auger, director of the Field Husbandry Branch at Quebec, was impressed by the excellent condition of the farm crops, and took advantage of the chance to point out the necessity of good crops planted to conform to the needs of the livestock on the farm. Good cultural practices were also stressed; he warned against the use of poor seed, and urged the greater use of lime, suggesting that lime be ordered immediately so that it could be used before the fall rains begin.

Pierre Labrecque, Livestock Director, thinks that picnics and field-days like this are absolute necessities for farmers who want to enlarge their experience. A chance to get together with others at a place such as this demonstration farm is an invaluable way to find out what others are doing, to pick up new ideas, and to pass on bits of information which may be of help to others. He thought that more such field days should be held, and suggested that they could well replace some of the smaller county fairs, which in many cases are not doing the job they were designed to do, which is to promote agriculture, through education. Remembering that 77% of the gross fram revenue of the province comes from livestock, he thought that it was self-evident that livestock men should be interested in the best possible returns from their animals, and pointed out that the Department of Agriculture is always ready to help farmers with their problems.

Some Dairy Facts

The gross value of the Canadian Dairy Industry in 1954 was $900,000,000, made up of—

Dairy products valued at factories and milk plants	$700,000,000
Value of livestock sold from dairy herds	125,000,000
Value of farm-made dairy products	75,000,000

Although fluid milk sales during 1954 accounted for only 34.4 per cent of total farm sales of milk, 50 per cent of dairy farm cash income came from that outlet. Butter, on the other hand, used 52.4 per cent of total milk sold off farms in Canada and accounted for 39.1 per cent of the farmers' dairy income. Cheese milk took only 6.8 per cent of farm sales of milk and represented 5.2 per cent of dairy farm income. Manufacturing milk accounted for the remaining 6.4 per cent of milk sold off farms yielding 5.6 per cent of income.

Since 1939 the milk distributors' margin as a percentage of the retail price of a quart of milk has declined nearly 28 per cent whereas the farmers' percentage share of the retail price has increased 51 per cent.

DID YOU KNOW THAT IT REQUIRES . . .

2.58 pounds of milk to fill one quart,
23.4 pounds of milk to make one pound of butter,
11 pounds of milk to make a pound of cheddar cheese,
17 pounds of milk to make one gallon of ice cream,
2.3 pounds of milk to produce a can of evaporated milk,
8 pounds of milk to produce one pound of whole milk powder.

56 per cent of the veal and 36 per cent of the beef consumed by Canadians is supplied by cattle and calves from milk herds.

Dairy products provided over 18 per cent of total farm cash income in Canada during 1954. By provinces the percentages were—

Prince Edward Island	18.2	Manitoba	11.1
Nova Scotia	27.8	Saskatchewan	4.9
New Brunswick	24.3	Alberta	7.5
Quebec	37.8	British Columbia	27.0
Ontario	20.2	CANADA	18.0

The farmers' share of the retail price of butter has increased from 63 per cent in 1939 to almost 78 per cent in 1954. Butter returns to farmers a greater share of the consumer's dollar than does any other major farm product.

THE WOMEN'S INSTITUTES SECTION

Devoted to the activities of the Quebec Institutes and to matters of interest to them

The A.C.W.W. Asks The Housewife

The Quebec Women's Institutes has just sent the reply to a questionnaire on the marketing and distribution of agricultural products to the London office of the ACWW. This survey, carried on at the request of the ACWW was discussed at a provincial board meeting and the findings have now been announced.

At the 1953 Conference of the Food and Agriculture Organization the recommendation was made that all member nations make a study of this problem. To get the practical aspects of this question the FAO turned to the ACWW, who has consultative status with that organization. Women would not be concerned primarily with statistics but with the economic, nutritional and practical aspects of this study, so the questionnaire has gone to all constituent societies, asking the housewives themselves for the answers.

In Quebec we seem to have little complaint to make about marketing services. With chain groceries and supermarkets there are few parts of the province that have difficulty in procuring the essentials for comfortable living. This applies, of course, only to those districts outside the larger cities, (the Q.W.I. survey) and does not reach to the far northern section of the province where there are no Institutes.

In general, all staples are bought, with the exception of apples and small fruits in some sections, and many have their own vegetables and dairy products. Fuel is also bought, half of the farm women, however, use their own wood. Rural electrification has made strides the last few years and many farm homes now use it for summer cooking.

In answer to the question, "Is the housewife satisfied with the quality and freshness of the goods supplied?" the reply was, in general, "Yes". New type packaging and refrigeration enter the picture here. Spring is given as the one time of the year when it is difficult to get fresh fruit and vegetables, shorter supply and more expensive. ("Roads bad then anyway", and "No time in sugaring", a lighter touch here).

Once a week was the popular time for the trip to market and bus and car the usual method of transportation. A very few were near enough to walk and still less had delivery. The average distance was four miles but this varies from one-half up to ten miles. Almost all said there was a choice of market, chain stores in almost every centre, and the corner grocery—a few super-markets. One single reply said "not much choice".

No market stalls are run by organizations in this province. In the larger cities there are farmers' markets once a week and some roadside stands in certain districts, but these are all individual efforts.

Additional comments pointed out that processing and cold storage plants help to clear produce from the market at a fair price. Consumers should know costs of production and distribution and understand weights and grades of the produce they buy. Courses in Nutrition and Buying should be taught in every school, was another comment made, and all felt that the conservation of natural resources was all important.

Comments from the prairies, the only other provinces reporting to date, show members use cars, trucks, tractors, horseback, or their own feet to take them to shop and distances are anywhere around 10 to 20 miles. The growing season is short and so home and community freezers for home-grown food are very popular. In the central province of Saskatchewan the women are not too satisfied with the freshness of what they buy. Everything has a long way to travel. They say that lower freight rates would enable smaller quantities of goods to be bought at a time.

A Record of Achievement

The Annual Report of the National Federation of Women's Institutes, England, has been received. It makes inspiring reading. During the past year 163 new Institutes were organized, making a total of 8,178 with a membership of 476,000, an increase here of 3000.

The Annual Meeting had 96.7% representation (pooling of fares is used). The meeting was honoured by a visit from Her Majesty, Queen Elizabeth the Queen Mother, who addressed the delegates on the first morning and stayed for the business session following.

The year saw the passing of a great leader in the English Institutes, Lady Denman. An extract from one of her addresses is quoted, which is worth passing on to Institutes in other lands. "To my mind the greatest of all the achievements of the Institutes is that we really have learnt to govern ourselves. We do not believe in

dictators, we believe that each member should be responsible for her Institute and should have her share in the work . . . there is no job that is better worth doing".

The W.I. College, named in her honour, continues to grow. 1,960 members attended courses during the year and in addition approximately 5000 W.I. members visited it during two weeks in June and July. Here is an intriguing title of a one week's course, "What Every Housewife Doesn't Know". It was over-applied for.

The N.F.W.I. continues to supply an organizing secretary for Malaya, where the W.I. is growing steadily.

An Anniversary

The Associated County Women of the World is 25 years old. Starting as a Liaison Committee of Rural Organizations connected with the International Council of Women, under the chairmanship of Mrs. Alfred Watt, a concurrent conference of this Committee was held when the International Council held a conference in Vienna, May 1930. From a nucleus of its members came the ACWW with Mrs. Watt as its first president.

An office was set up in London, where it still is located. This was in charge of Miss Zimmern, whom many will recall meeting at the 1953 Toronto Conference. Speaking, in humorous fashion, of how this was done, Miss Zimmern adds, "Those of us who worked in that office 25 years ago had high hopes but we none of us would have thought it possible that it would grow into the big world-wide organization that is the ACWW today".

The ACWW now numbers over 6 million rural women and spans the globe. The Q.W.I. is proud to be a part of this great organization.

Office Doings

The Program Manual is being revised. An effort will be made to have this ready to send all branch convenors of Home Economics in September. Application forms for next year's courses will accompany it. Study the Manual carefully before filling in the form; and remember, these have to be in the office by the end of this year if you want to be assured of your choice for 1956.

A new list of pamphlets in the Loan Library will also be ready in the early fall. These will be made up again in separate sections for each convenor. This was found an improvement. A complete set will be included to be kept in your W.I. "Reference Library".

We have had another "Alert to Canadian Citizens". Be sure to check with the office before listening to any appeals, or signing any petitions, from organizations that are new to you.

The Month With The W.I.

Branches are still hearing about the Provincial Convention and interest is continuing in the Leadership Course. Displays of articles made at the latter are reported by several branches, both at their own meetings and at the county quarterlies. Summer means vacations for many Institutes. That brings fewer reports but all such good ones, packed with activities—in spite of the heat.

Argenteuil: *Arundel* members had a trip by bus to Ottawa and a tour of the Parliament Buildings. Final arrangements were made for the annual bazaar. *Brownsburg* won 11 prizes at the Lachute Fair and made plans to exhibit at the Ottawa Fair. This busy group donated a park bench to the Social and Athletic Club for its lawn (open to the public), plan to present a new flag to the school, and are holding a Handicraft Fair and Tea. *Frontier* reports a picnic held for the children. *Lakefield* made plans for future activities at a busy meeting. *Pioneer* also had entries at the Lachute Fair and nine prizes were won ($21). Talent money was donated to the general funds. *Upper Lachute-East End* appointed committees and made plans for several activities to take place in the near future.

Brome: *Austin* has received several donations for their sale tables at the annual bazaar. A bursary of $50 was awarded to Douglas Taylor, Austin.

Gaspé: *L'Anse-Aux-Cousins* sent $5 to CARE for food to Korea and held a scrambled word contest in Agriculture. *Sandy Beach* made final arrangements for the annual picnic. A bonfire, weiner roast and sale of handmade articles was held. *Wakeham* had a sale of remnants, netting $4.85, and made arrangements for the county picnic. All convenors read or gave a brief talk on topics dealing with their departments. *York* made plans for a Strawberry Social.

Gatineau: *Aylmer East* raised $304.45 at a benefit dance—for a member who has been in the hospital for a year. Pen Pal names were given to members by Mrs. J. C. Jameison, Citizenship Convenor. A fun-making contest was conducted by Mrs. R. Leach (No one won).

Cleveland W.I. presents a wheel chair to the Wales Home. From left to right are Mrs. G. Fletcher, Miss M. Stamp, Matron M. Armstrong, Mrs. A. Smith, Miss F. Fletcher, Mrs. H. Taylor, Mrs. R. Taylor, Mrs. R. Healy (president, W.I.), and Mr. C. W. Armstrong, the president of the Wales Home. Seated in the chair is Mrs. Stewart.

Snapped at a Huntingdon County meeting are Mrs. Holmes, Mrs. Bernhardt, Mrs. Smallman, Mrs. Ellard and Mrs. Rember.

Eardley's meeting was a basket picnic held in Gatineau Park with members from Breckenridge W.I. as guests. Games and races were enjoyed. *Lakeview* is planning a glove-making course. Mr. J. W. Delaney, agronome, showed films on W.I. Handicrafts of Quebec Province, and Recreation In Nova Scotia. *Lower Eardley* made arrangements for Aylmer Fair. *Rupert* held their meeting with Mrs. Hans Johnston at Lascelles. Plans were made for the annual service at Rupert Union Cemetery. *Wright* held their meeting at Mrs. Ellard's home in Ottawa when they heard the high-lights of the F.W.I.C. Biennial in Winnipeg. (Mrs. Ellard Q.W.I. 2nd vice-president was formerly a member of this branch).

Missisquoi: *Cowansville* heard excerpts from an old book about Cowansville and its early residents which were humorous and very interesting. *Dunham* entertained several members of the Stanbridge W.I., including Mrs. G. D. Harvey, 1st vice-president, Q.W.I. A picnic was sponsored by the W.I. for school children at a member's cottage. *Fordyce* had a busy meeting with several guests present. The convenor of Education was appointed to buy prizes of books for pupils in Grades 7 and 8 who attend Cowansville High School. *Stanbridge East* observed a moment's silence in memory of an old and faithful member. Selling the "Queen's Cake" recipe helped to raise funds to pay off debt on the new Memorial Hall. A donation of $10 was received from the Department of Youth & Social Welfare, for the sports programme held on day of School Fair.

Quebec: *Valcartier* heard a talk by Mrs. Klyndert on her native country, Holland, also two films were shown, "Highlights of Holland" and "Land Behind the Dykes". Donations were made of $50 to the Q.W.I. Service Fund and $44 to the Jeffrey Hale Hospital Fund.

Richmond: *Cleveland* had articles about Dominion Day and a paper on "Mental Cruelty to Children". The story of the birth of the first Moslem baby born in Canada was also told at this meeting. *Dennison's Mills* gave gifts to their former secretary and to a new bride. *Gore's* rollcall was "Grandmother's" remedy for common ailments. A word-building contest was held. *Melbourne Ridge* held a contest on cities and towns in Canada and a jumbled "Names of Canadian Newspapers" contest. A white Elephant sale and party brought satisfactory financial results. *Richmond Hill* held a shower for a bride-to-be and a supper for a couple celebrating their 25th wedding anniversary. Proceeds from a White Elephant sale went to the Polio Fund. *Shipton* is sponsoring the school fair to be held in the High School and articles of sewing and knitting were donated to the County W.I. booth at the Richmond Fair. A picnic was held with Dennison's Mills W.I. as guest. Shipton has the next broadcast over CKTS, Sherbrooke. *Spooner Pond* reported 14 members attended the Provincial Convention. A contest on home-made cookies and auction later helped the treasury. This branch is also making contributions of articles for the W.I. booth at the county fair.

Rouville: *Abbotsford* held a contest with prizes given to the winners. A basket of fruit was sent a member in the Abbotsford Convalescent Home.

Shefford: *Granby West* had as guest speaker a charter member of the Homemaker's Club, Battleford, Sask. A contest was held on "Trees". *South Roxton's* rollcall was "One step I can make toward World Peace" and current events were discussed. *Waterloo-Warden* observed Grandmother's Day with a rollcall, "Community Pleasures of Your Youth", a contest on words. Seven grandmothers were present. A prize was given for the oldest costume, won by Mrs. Ashton, and another for the grandmother with the most grand-children, Mrs. A. Young.

Stanstead: *Tomifobia* had Mrs. Howard Cass, county convenor of Welfare & Health, as speaker at their meeting. Plant slips were sold. *Way's Mills* had a demonstration on Artificial Respiration with related films under the direction of the Southern Canada Power Company, assisted by Scout Master and First Class Scout from Group I, Waterville. This meeting was open to the public Several musical selections were given by Miss Irene Boomhower, games, and singing rounds completed the programme.

Waterloo-Warden with their guests (all grandmothers) in the back row.

Dear Readers:

Harvesting, canning, back to school for the children; hardly time to even read the *Journal!* All this activity recalls to my memory the story of the ant and the grasshopper. We should eat well this coming winter; as well as the ant, with the abundance of fruit and vegetables which have been provided for our use.

The corn crop is excellent. As a rule it is taking quite a gamble to plant corn in this area. We lost out last year so we went back to oats but missed on that chance too as far as ensilage goes, for they are very short-stemmed. What caused that? The dry summer or the wet spring conditions? The oats on well-drained land seem to be the best so this again brings up the problem of better drainage. It is difficult or nearly impossible to get tile locally, so everybody would benefit if a co-operative or a Farm Forum would help in correcting this problem.

A couple of weeks ago a little irrigation would have helped, but everything is looking fine this morning after that good soaking rain.

At the end of July we went to the Farm Day at the Experimental Station at Lennoxville. It was a cool, clear day and we drove through the countryside getting a good view of the distant mountains and rolling hills. Each tree stood out so clearly, seeming to be of a different shade of green from those it grew with. Everything at the Farm was fresh and green, though the dry weather had let its mark by the early ripening of the grain, and there were a few brown spots on the usually luxurious lawn. The gladiolus and Angels' Trumpets were putting on a show of bloom and the ladino clover fields were white with blossom, which the Jersey and beef cattle were so busy grazing that they could barely spare us a look.

We made a tour of inspection of the plots but the lack of rain kept these from showing up to best advantage of using lime, borax, manure and fertilizers that had been used. They are having the same trouble we are! The grain was very short strawed, though one large field toward the St. Francis river was in perfect shape, just waiting to be bound.

Alfalfa growing is a project of major importance at the Farm just now and they are putting a lot of work on this crop. Their alfalfa field was a beautiful sight; a mass of crimson clover blossoms where only two pounds of clover to eight pounds of alfalfa had been sowed. They had my sympathy, working so hard to achieve what to us looked to be impossible. We hope they soon find the magic element that is at present lacking in the soil.

One new piggery has been built since our last visit and another was in process of being built that weed. These are used for the pigs entered in the Advanced Registration Records.

After a picnic lunch under the shade-spreading trees, Mr. W. G. MacDougall introduced Dr. George Dion, vice-principal of Macdonald College and Dean of the Faculty of Agriculture, who immediately became our friend. He spoke as an authority on a question we'd often approached but could not discuss because we didn't have the information — "Can the world feed itself?" He told us that with the knowledge we now have, with the use of modern machinery and fertilizers, we could feed an enormous population, and as yet there are vast areas of land still undeveloped.

He was thanked by Mr. Lawrence Taylor and we in the audience hoped that he doesn't make this his last visit to the Townships, his first was so successful.

Dr. Mercier expressed his pleasure to see almost three hundred people making use of the Farm, for unless the farmers visited it and learned of their methods, their work could not continue. We were all invited to come back at any time.

Meantime, Mrs. Taylor, Secretary of the Q.W.I. spoke in her usual vivacious manner to the ladies, telling about the distribution and marketing of agricultural products and conducting a quiz on "Our Marketing Problems". This is a question being studied by the quiz method by the Federation of Women's Institutes all over the world. Our answer was that our marketing services are adequate, except possibly in the spring when sugaring and bad roads often delay our shopping. We got home in time for supper and all called it a day well spent. Let's hope we have a chance to make the trip again next year.

Last week our W.I. took the members on a tour to Sherbrooke. We visited the milk plant and saw how our milk is received, condensed, processed and packed. Then, following an education period on Canadian industries, we had some fun by having afternoon tea at a lunch room in the city.

Fair time came next. Our children and their two Holstein calves went to the Ayer's Cliff Fair, where vegetable exhibits were numerous and of excellent quality. The sheep and pigs were a big feature but cattle and horses showed a decline. The Midway was the largest ever with five different rides. In the Ladies' Department the most striking article was a hand-woven bed-spread with a gaily-coloured peacock surrounded by hooked roses. It took a second prize for Mrs. Gaulin. In the hobby class an inlaid coffee table, made of a variety of colourful woods was exhibited by Lyle Rand of Sawyerville.

The County W.I. advertised their "Project of the Year", the sale of county scenic calendars and were taking orders for them. So all in all it was quite a Fair.

Tomorrow night we are to go to the Birchton Hall to meet with Mr. Griesbach. I expect we may be making plans for a Leadership School; at least, that is our hope.

Sincerely,

Wally.

The Need For More Sheep

If Canadians ever decided to eat as much lamb and mutton per capita as Australians, it would require some 25 million more lamb carcasses to meet the demand. Marketings last year at February inspected plants in Canada were 562,000 carcasses.

R. K. Bennett, Chief of Livestock Marketing of the Canada Department of Agriculture, Ottawa, made this statement at the annual meeting of the Canadian Cooperative Wool Growers' Association in Toronto.

Mr. Bennett said that lamb and mutton constitute only 1.7 per cent of the total meat supplies consumed by Canadians. Beef makes up close to 50 per cent of total meats eaten, while pork constitutes about 37 per cent. Veal, canned meats and offals make up the balance.

A mere 2.5 pounds of lamb and mutton per capita is consumed in Canada. In other countries this per capita consumption figure is much higher. In the United States it is 4.5 pounds, in the United Kingdom 24 pounds, and as high as 78 pounds in Australia and New Zealand.

If we stepped up our consumption of mutton and lamb on a par with American consumers about 660,000 more lambs would be consumed in Canada each year. If lamb and mutton consumption compared with the United Kingdom we would require an additional 7 million lamb carcasses.

In Canada there is one sheep for every 13 people. Our American neighbors have one sheep for every 6 people. As might be expected the situation is reversed in Australia where they boast 15 sheep for every person.

Canada's sheep population reached a peak back in 1944 when a census showed 3.7 million in the country. The low year was 1951 with about 1.4 million. Last June 1, Canada's sheep population was estimated at about 1.8 million, and at December 1.1 million.

Mr. Bennett also stated that Canada imports over 80 per cent of her wool requirements.

Last year Canadians used about 47 million pounds and only produced 8.5 million, of which one-third was exported. This means a net deficit of about 40 million pounds, or in other words the wool from about 5 million sheep.

THE COLLEGE PAGE

The Macdonald Clan

Notes and News of Staff Members and Former Students

The Rainmakers

Many years ago a "permanent" type of irrigation system was installed in the vegetable plots of the Horticulture Department. This was a series of fixed pipes raised about two feet from the ground on wooden posts, and drew its water from the College water tank, the normal pressure in the mains forcing the water out through small jet-type nozzels set along the pipes.

This worked fine for a while, until the demands of new houses and laboratories put such a load on the water system that it became impossible to supply water for irrigation as well. So the department invested a substantial sum of money in a portable irrigation system using aluminium pipes that could be moved from place to place easily and quickly. Water from the system is pumped directly from the nearby Ottawa River at a rate of 250 gallons per minute at the pump.

During the summer which has just finished the system has been in use almost constantly, and has paid big dividends. Except for the first picking, raspberries would have dried up without the water the system supplied. Strawberry yields were much improved by additional watering, but one of the places where it was particularly useful was in the plots where the variety trials are carried out. In these plots commercial seed is sown and the resulting crops checked to see that the seed is true to variety and of good quality. Obviously, for tests like this to be truly accurate, the crops must be grown under the best possible conditions. The Horticulture experts can control seed bed preparation, depth of seeding, fertilization and cultivation, but without proper moisture balance it would be hard to get a crop that would be typical. Here the irrigation made a big difference in the results obtained.

In the orchard, where a promising crop was developing, the trees were starting to wilt in the mid-summer heat. The orchard is a long way from the river, but by using every foot of pipe available it was possible to lay lines between the tree rows, and for a week and a half, working day and night, the men kept the water going continually, except for the time lost in disconnecting the pipes and moving them to a new location.

And there was still another use for the system. The football field had a face-lifting this summer: the field and the running track which surrounds it were levelled. This involved removing the sod from about half the field, removing the high spots and replacing the grass. New sod had to be laid in August so that it would have a chance to start growth before the field was used this fall: but August was a month of no rainfall and great heat. However, everything went smoothly with the irrigation system available. As soon as the sod was laid the water was turned on, and as a result the field is now fresh and green, and the grass shows no signs of having been tampered with.

The Horticulture Department doesn't claim that this year's use of the system has paid for its cost; but it did make it possible to operate normally in what was a most difficult year for the kind of crops they grow.

In the orchard and on the football field, the portable irrigation system saved the day this year.

At Last — — —

A practical book for practical farmers!

Easy to find information on

- **Better Farming Practices**
- **Home Gardening and Fruit Growing**
- **Food Freezing and Storage**

NOW IS THE TIME TO ORDER YOUR MACDONALD FARM HANDBOOK

300
fact-filled pages
•
pocket size
•
a mine of information

A complete "how to do it" guide to farming in Eastern Canada.

Group order for 5 or more copies from Farm Forums, Women's Institutes, or other organizations will be filled at a special price of

$1.00 per copy

Price of individual copies
$1.50 each

Orders accepted by the Adult Education Service, Macdonald College, Que.

NAME .....

ADDRESS .....

THE MACDONALD LASSIE